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1935

# HAWAII NATIONAL PARK

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• HAWAII •

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UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE



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UNITED STATES DEPARTMENT OF THE INTERIOR  
HAROLD L. ICKES, Secretary  
NATIONAL PARK SERVICE  
ARNO B. CAMMERER, Director

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# H A W A I I .

## NATIONAL PARK

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OPEN ALL YEAR



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UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1935

## RULES AND REGULATIONS

The following summary of rules and regulations is intended as a guide for all park visitors. You are respectfully requested to facilitate the best in park administration by carefully observing the provisions as outlined:

**Preservation of natural features.**—The first law of a national park is preservation. Disturbance, injury, or destruction in any way of natural features, including trees, flowers, and other vegetation, rocks, and all wildlife is strictly prohibited.

**Camps.**—Camp or lunch only in designated areas. All rubbish that will burn should be disposed of in camp fires. Garbage cans are provided for noninflammable refuse. Wood and water are provided in all camp grounds.

**Fires.**—Fires are absolutely prohibited except in designated spots. Do not go out of sight of your camp, even for a few moments, without making sure that your fire is either out entirely or being watched.

**Dogs, cats, or other domestic animals.**—Such animals are prohibited on Government lands within the park except as allowed through permission of the superintendent, secured from park rangers at entrances.

**Automobiles.**—The speed limit of 35 miles per hour is rigidly enforced. Park drives are wide and smoothly surfaced. It should always be remembered that each driver's own carefulness and responsibility to others are the greatest safety factors involved.

**Trail travel.**—Hikers and riders shall not make short cuts, but shall confine themselves to the trails at all times. Saddle animals have the right of way over pedestrians. The latter will take the outer side of the trail whenever possible, and shall stand quietly until animals have passed.

**Hunting.**—Hunting within the park boundaries is prohibited. No firearms are allowed except as provided for through permission of the superintendent, secured from park rangers at entrances.

**Park rangers.**—Park rangers are public servants. They are here to answer your questions and otherwise help you in every possible way. Help them to better serve you by observing these regulations.

Copies of the complete rules and regulations promulgated by the Secretary of the Interior for the government of the park may be obtained at the office of the superintendent and at other concentration points through the park.

MAY 14 '35

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## HAWAII NATIONAL PARK

THE Hawaii National Park, in the Territory of Hawaii, was created by act of Congress August 1, 1916, and placed under the control of the National Park Service of the Department of the Interior. It is unique in that it consists of two separate tracts of land lying on different islands. The Kilauea-Mauna Loa section is located on the island of Hawaii and the Haleakala section is on the island of Maui. The total area of the park is 245 square miles. Of this, 219 square miles are in the Kilauea-Mauna Loa section and 26 in the Haleakala section.

The park was created to conserve the most representative areas of volcanic interest in the United States. Its craters, active and dormant, are among the most interesting in the entire world and even the active ones may be visited with reasonable safety.

Each section of the park is named after the volcano that is its outstanding feature. Kilauea Crater, with its fire pit has been active almost continuously since its discovery. In recent years there have been active periods about once each year. Mauna Loa, which erupts about once each 4 years, is the largest single mountain mass in the world and has poured out more lava during the last century than any other volcano on the globe. Haleakala, a dormant volcano, is a mountain mass 10,000 feet high, with a tremendous crater rift in its summit 5 miles across and 3,000 feet deep containing many high cinder cones.

The park is also noted for its luxuriant tropical vegetation, which forms a striking contrast to the volcanic craters and barren lava flows. Gorgeous tree ferns, sandalwood, and koa, or Hawaiian mahogany, vie with the flowering ohia trees in making the park forests unusually interesting to the visitor.

### OUTDOOR LIFE IN HAWAIIAN ISLANDS

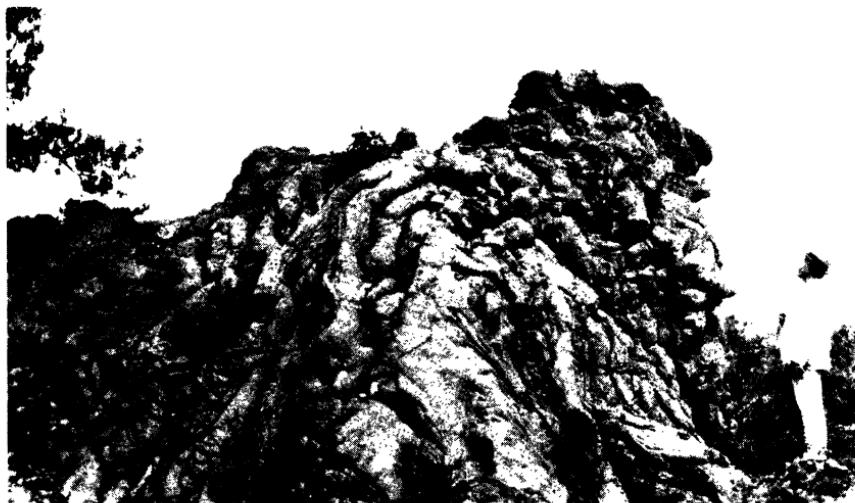
The Hawaiian Islands, in addition to their scenic beauty, their unique geological and botanical appeal, offer great attractions to an increasingly large number of people who love outdoor life. The equable climate permits the enjoyment of any or all popular outdoor games and sports the year round. Riding or hiking over picturesque trails; swimming in waters which always seem to be at the desired temperature; polo; tennis; golf on sporty courses swept by cool breezes from the mountains; deer hunting; big game fishing; camping on sandy beaches; and surfing on great boards or outrigger canoes—all are there for the choosing.



*Rilanea's lake of fire by day.*

### INTERESTING FEATURES

As long as the average visitor has made a trip of 2,000 miles or more to reach the islands, it is urged that he extend his stay from the usual 1 week to 2 weeks if possible. It will be time profitably spent. The national park comprises only part of the islands, and the entire Territory is of great interest. For instance, a tour of the island of Hawaii, where the Kilauea-Mauna Loa section of the park is located, displays many attractions. There are lava flows of the last and the present century with the individual characteristics all plainly signed.



*Curious lava formation.*

In the Kona district on the lee side of the island the rolling slopes of Mauna Loa and Hualalai are clothed with a dense native forest which gives place in the more settled portions to quaint villages and homes scattered among the acres of coffee bushes. The shore line is an irregular series of abrupt cliffs and level lava plains interrupted with beaches of pure white sand. The region about Kealakekua Bay is one of great historic interest. Here are found the finest examples remaining of the ancient Hawaiian temples, rock carvings, and burial caves. Here the British discoverer of the islands, Captain James Cook, landed in 1779 and here today, by taking an outrigger canoe across beautiful Kealakekua Bay, the visitor stands beside a monument erected in his memory on the spot where he met his death. The ground on which the monument stands is British soil. The numerous bays along this coast are famous for the exciting sport they offer to the deep-sea fisherman with heavy line and reel.

On the upland ranges of North Kona and Kohala immense herds of cattle, sheep, hogs, and horses, raised for island use, may be seen. Along the Hamakua coast for 50 miles the lower slopes are covered with sugarcane and the rugged coast line is marked by sugar mills and villages.

#### KILAUEA-MAUNA LOA SECTION

The most spectacular portion of the park is that including the volcano of Kilauea, usually the most active. This volcano, probably older than towering Mauna Loa, its neighbor, creates the impression of being a crater in the side of the higher mountain, although in reality it is itself a mountain with an elevation of 4,090 feet. This illusion is the result of the broad depression at its top and of its gentle slopes, caused by lava flows from many lateral vents. Within the depression is a vast pit, Halemaumau, sometimes called the "House of Everlasting Fire", which for years has drawn travelers from the four quarters of the earth. This pit often contains a boiling, bubbling mass of molten lava whose surface fluctuates from bottom to rim. Activities averaging at least one outbreak a year have occurred since 1924. Its risings are accompanied by brilliant fountains and inflows of liquid lava, and its lowerings by tremendous avalanches which send up enormous dust clouds.

Nearly a century and a half ago Kilauea became unusually active, and its violent blast of ash destroyed a Hawaiian army. From that time—1790—no rocks or ash were ejected until 1924. During the autumn of 1923 the lake of fire drained away, but gradually returned until the pit contained a 50-acre lake of seething lava. Lava geysers traveled across its surface, sending up incandescent sprays 150 feet into the air. In 1924 this lake disappeared and crumbling masses of rock fell into the smoking pit, choking the vents through which the volcanic gases had escaped. A few months later when steam blasts unexpectedly occurred, the vents were cleared by tremendous explosions hurling boulders and ash for thousands of feet into the air. The violent disturbance continued for 3 weeks, and at the end of that time the fire pit had been enlarged to four times its former size, the opening being 190 acres in area and 1,200 feet deep. A few weeks later, when all was quiet, a roaring jet of lava appeared at the bottom of the pit, sending up a steady spray 200 feet high, building up a small cinder cone, and forming a 10-acre lava lake on the floor of the pit. After giving a brilliant display for a couple of weeks the fountain subsided and the volcano became dormant. In July 1927 a similar display occurred, lasting for 2 weeks, and in January 1928 the fire returned for 1 night only. Gas and vapor rise continually.

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During 1929 spectacular lava inflows occurred in February and July, raising the floor with new material to depths of 55 and 45 feet, respectively. The pit depth in December 1929 was 1,050 feet and the floor area 48 acres.



*Smoke cloud from Kilauea on first day of 1934 eruption.*

On November 19, 1930, molten lava again appeared in Halemaumau. Activity continued until December 7. This activity raised the floor of the pit 70 feet; the surface area of the floor then covered 62 acres.

Following a series of earthquakes, molten lava broke into the bottom of Halemaumau on December 23, 1931. The activity lasted as a spectacular display until January 5, 1932. During the activity the pit was filled to a depth of 100 feet with lava, resulting in a new floor of 88 acres, which is 860 feet below the rim of the pit.

In the early morning of September 6, 1934, at about 2:45 a. m., without much preliminary warning, molten lava again returned to the fire pit in Kilauea. This eruption in its early stages was one of the most spectacular on record. Highly charged with gas released from tremendous pressure the frothy lava burst through a crack 700 feet long, halfway up the western wall of the crater, cascading in rivers of fire 425 feet to the floor below. The force of the lava cracked open the old floor left by the 1931-32 eruption across its northern and northwest end, and along the foot of the western wall dense clouds of sulphur fume poured out, as the fiery fountains



*Visitors may look into the fire pit in reasonable safety.*

shot the liquid lava high into the air. As in the previous eruption, blocks of light pumice thrown out from the vents were whirled upward by the heat currents and gales of wind and deposited in shattered fragments over the land for more than a mile to leeward. In a few days the crater had been filled with new lava to a depth of 70 feet, and instead of the countless frothy fountains of the initial outbreak the activity centered in a lake of fire with from 5 to 10 fountains continuously throwing jets of heavy liquid lava from 50 to 200 feet above the lake.

#### VOLCANO HOUSE

On the northeast rim and overlooking the entire crater of Kilauea stands the historic Volcano House hotel. This rambling structure, reflecting the steady growth in popularity of the volcano region as a vacation ground, was first erected about 1860. Since that date it has been in continuous operation, and its register of guests includes the names of kings, princesses, scientists, and authors among those of the thousands who have stayed there while viewing one of the most awe-inspiring spectacles on this earth.

#### KIPUKA PUAULU

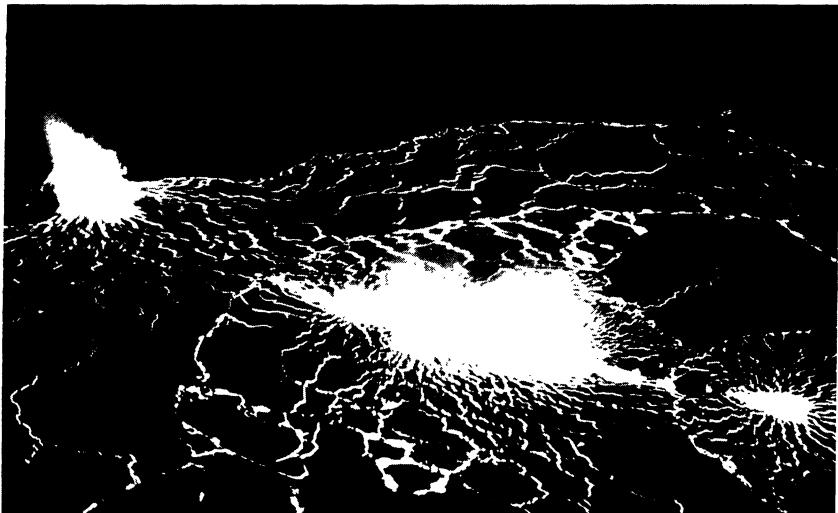
Kipuka Puaulu, a beautiful natural park, also known as Bird Park, is an interesting feature of the Kilauea area. This kipuka or oasis has escaped encircling lava flows, and its rich black soil supports a marvelous variety of vegetation. As many as 40 species of trees grow here. This favored spot of 56 acres is the haunt of many beautiful and rare native birds.

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### VOLCANO OBSERVATORY

A volcano observatory under the direction of Dr. T. A. Jagger, the volcanologist in charge, is maintained at Kilauea by the Geological Survey of the Department of the Interior with substantial collaboration by the Hawaiian Volcano Research Association, which originated continuous volcano



*A night photograph of Kilauea during a period of activity.*

study in Hawaii. Much valuable scientific data are obtained here concerning earthquakes and volcanoes. Recording instruments are located in various parts of the island as well as about the volcano.

### UWEKAHUNA MUSEUM

The National Park Service maintains a museum and lecture hall at Uwekahuna Bluff, located on the high point of the bluff and overlooking the entire Kilauea Crater and Kau Desert. Through the medium of lectures by the park naturalist and staff members, demonstration maps and charts, motion pictures, lantern slides, exhibits of volcanic rock and formations, and an actually operating seismograph, the visitor is enabled to secure a comprehensive knowledge of volcanic action and its history in this particular area. The motion picture shown to groups visiting the museum has proved to be of exceptional value to park guests; many have remarked that it is a feature of the park tour that visitors should not miss. The picture, "The Structure of the Earth", edited and titled by the department of geology of Harvard University, shows views of several volcanoes in various



*Halema'uma'u just before the 1932 activity ceased*

## *Hawaii National Park—Hawaii*

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parts of the world during periods of activity. A large part of the picture is devoted to views of Kilauea and its fire pit, Halemaumau, during eruptions. The views of Kilauea are so vivid that, even though one does not have an opportunity actually to see the volcano in action, the picture gives a very clear conception of Kilauea during a period of activity. The motion picture



*Mauna Loa Summit Rest House.*

also shows diagrammatically how a great volcanic mountain is built up by the extrusion of volcanic ash, cinders, and lava flows from the interior of the earth, and how the famous lava tubes of Hawaii have been formed in the ancient flows from Kilauea and Mauna Loa.

The museum and its scientific equipment were donated by the Hawaiian Volcano Research Association, and the lecture hall is a donated structure erected from proceeds of Hui O Pele memberships.

### HUI O PELE

The Hui O Pele is an organization sponsored by the Honolulu Advertising Club and is composed of those who have visited the fire pit, Halemaumau, in the crater of Kilauea, the home of the fire goddess Pele, and paid due homage. The life membership fee is \$1, which entitles the member to an interesting certificate of membership and a lapel button or brooch. There are more than 15,000 members of this organization scattered throughout the world. The net revenues arising from the membership fees are expended for improvements in the park for the benefit of visitors.

Among the structures that have been erected are the Uwekahuna lecture hall, the Summit Rest House on Mauna Loa, and shelters at Hilina Pali, Thurston Lava Tube, Halemaumau Trail, and other points.

### **ROADS AND TRAILS**

Thirty-eight miles of highways lie within the Kilauea area. The main roads are paved. One of the roads leads to the very brink of Halemaumau, the fire pit, a fact that establishes Kilauea as the most accessible and popular volcano in the world. The Chain-of-Craters Road, 7 miles in length, passes by nine craters that lie on the great Puna rift, and will eventually be met by a new territorial road from Kalapana on the Puna coast. There are 80 miles of trails in the area.



*Clubhouse on the golf course.*

There are several important trails in the Kilauea Mauna Loa section. One of the most interesting leads from the hotel to the rim of the fire pit. Its first mile winds through rich tropical vegetation down the faulted crater walls to the floor of Kilauea, then for 2 miles it follows through fantastic lava formations and crosses the area bombarded by huge boulders and fragments of lava during the 1924 eruptions.

On account of the absence of fresh-water sources, small shelters with barrels to catch the rain run-off from the roofs have been placed on trails at strategic points. Hikers on overnight trips should inform themselves as to these points, and in addition should always carry canteens of water.

Following is a list of the most popular trails in the Kilauea-Mauna Loa section. All of them are well marked, with points of interest along the way identified.

*Hawaii National Park—Hawaii*

Trail	Description	One-way distance from hotel
Halemaumau . . . . .	Through beautiful forest growth to bare lava flows and across weird lava formations to fire pit. Return trip can be made by car or by other trails.	3 miles by trail.
Sandalwood . . . . .	A short trail near hotel. Passes through fern tree forests, ohia, and sandalwood and crosses many earthquake cracks. Return can be via upper portion of Halemaumau Trail, or vice versa.	¾ mile.
Steaming Bluffs . . . . .	Along edge of Kilauea Crater past live steam cracks to Uwekahuna. Round trip on trail or one way by car and one way by trail.	2 miles by trail.
Kilauea Iki . . . . .	Through fern and ohia forest and descends into one of the largest and most famous old craters.	1 mile by auto plus 2 miles by trail.
Summer camp and Byron Ledge.	Utilizes approach of Kilauea Iki Trail and continues along edge of main crater to summer camp, or leaves hotel by Halemaumau Trail and turns off shortly on trail to Byron Ledge. Several interesting circle trips possible on Byron Ledge. Much bird life here.	4 miles total trail on ledge. 2½ miles hotel to summer camp. 5 miles return by auto.
Puu Huluhulu . . . . .	Through ohia forest and jungle growth to the top of a high cinder cone. On a clear day excellent view from top of hill.	9 miles by auto plus ¾ mile by trail.
Napau Crater . . . . .	A cool jungle trail through weird forest growth. Circles 1 large crater, crosses a hot steaming area, passes the old pulu factory and small heiau, and ends at Napau Crater.	11 miles by auto plus 2.6 miles by trail.
Hilina Pali . . . . .	Across and through alternate lava flows and kipukas to the high pali overlooking miles of seacoast. Wild goats are seen frequently.	7 miles by auto plus 9 miles by trail.
Mauna Iki and Footprints.	9 miles by auto and 2 miles by trail over lava to Mauna Iki, a lava hill built up in 1920, where sticks may still be ignited in hot cracks. Passes the 1790 footprints.	9 miles by auto plus 2 miles by trail.
Kau Desert . . . . .	From Kilauea Crater bottom across a unique desert of pahoehoe lava streaks, sand bottoms, and lava desert to cone and pit craters.	6 miles by auto plus 7 miles by trail.
Seacoast . . . . .	To the rough and rugged seacoast area. A trip requiring an overnight camp out or an extremely long day. Guide required.	8 miles by auto plus 16 miles by trail.
Mauna Loa . . . . .	Ascends a volcano 13,680 feet elevation and a visit to the summit crater Mokuawewo, which is 3 miles long by 1½ miles wide and periodically active. This trip requires 2 nights out.	3 miles by auto, 58 miles by trail.
Old Keauhou Road . . .	Through semitropical forests and fern jungles, passing lava tubes, earthquake cracks, and extinct craters. Cars can meet hikers at far end of trail.	1 mile by auto, 10 miles by trail.



*Cinder cones and clouds in the Crater of Haleakala.*

MAUNA LOA

To the west of Kilauea rises the vast dome of Mauna Loa whose summit crater, Mokuaweoweo, is included in the national park as well as a broad connecting belt between the two volcanoes. Mauna Loa, which is the world's largest single mountain mass, thrusts its great bulk 13,680 feet above the surrounding Pacific. By eruptions in its summit crater and flank outbreaks it is constantly adding to its mass.

In action Mauna Loa is even more spectacular than Kilauea and in the summit crater fume and steam vents continually send feathery clouds into the air. Mokuaweoweo and Kilauea are of approximately equal size, but the former is slowly increasing its area by slumping and breaking down of its outer walls. Extending northeast and southwest from the summit are volcanic rifts with many deep rents formed by earthquake and eruption as well as many brilliantly colored spatter cones some 200 feet in height. These rifts have been the source of most of the recent eruptions, though the summit crater is also frequently active.

In 1868 a particularly violent outbreak showered the surrounding country for 15 miles with ash and pumice. Near the source of the eruption the ash was 15 inches deep.

After a period of dormancy from 1919, in the spring of 1926 a great flow from Mauna Loa occurred, preceded by jarring earthquakes. The flow commenced with a spectacular outbreak from a crack extending more than a mile southwest from the summit crater and lasted about 9 hours. For 3 days following the mountain was continually shaken by earthquakes until the main flow developed about 13 miles farther down the southwest flank. This main flow lasted nearly 2 weeks, was "aa" in type, about 1,500 feet wide and 30 feet deep. Progressing slowly, like a great snake it wound its way seaward, destroying in its path the little fishing village of Hoopuloa. As the lava struck the sea there was a hissing sound followed by a roar as jets of pebbles and clouds of sand were thrown up by violent steam explosions. It was a never-to-be-forgotten sight for those fortunate enough to witness it.

The summit crater of Mauna Loa was active for 16 days in December 1933. During the activity the new lava covered an area of more than a square mile to a depth of as much as 100 feet in places. Two great cinder cones were built up at the source fountains. The glowing smoke columns from the eruption vents were visible from the hills behind Honolulu.

Spectacular and violent as these outbreaks are, they are not dangerous, for there are always plenty of time and opportunity for onlookers to get

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to places of safety. In fact, a volcanic eruption in Hawaii is cause for rejoicing rather than fear, as everyone rushes to the scene of the spectacle. Mauna Loa has averaged activities once in 4 years since 1832.

### **MAUNA LOA TRIP**

From the Kilauea area to the summit crater of Mauna Loa and return is a distance of about 58 miles, and the trip can be made in 3 days, either riding or hiking. It is customary to leave the hotel at Kilauea on horseback in the morning, riding about 20 miles over the lava to a resthouse set in a cinder cone called "Puu Ulaula", or "Red Hill", at the 10,000-foot elevation. The night is spent here and the next day the 18-mile walk or ride to the top and back is made. The second night is spent at the resthouse and the next day the return to Kilauea is made. If one desires it is now possible to remain in the new Hui o Pele Shelter at the summit of the mountain.



*The park administration building.*

On this journey the air is rare and cool, the view superb and unrestricted for miles around. Wild goats are encountered on the trip. Beautiful lava specimens, with the sparkle of gold and silver and varicolored brilliants, may be seen on the way.

All persons intending to make the ascent of Mauna Loa should first register at park headquarters and secure permission to use the resthouses.

### **HALEAKALA SECTION**

The Haleakala section of the Hawaii National Park on the island of Maui contains one of the largest volcanoes in the world, within the crater of which could be placed an entire city. It was last active in the eighteenth

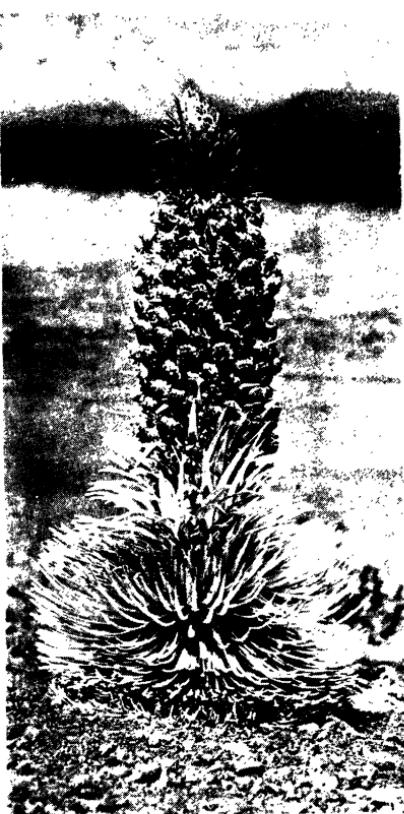
## Hawaii National Park—Hawaii

century. The crater covers an area of 19 square miles and has a circumference of 21 miles. In places it is several thousand feet deep. Inside the crater are hundreds of cinder cones and lava flows, and at the southeast and northwest sections of the crater wall there are low gaps out of which great rivers of lava once poured. Near each gap is a beautiful meadow with plenty of grass, mamani, and sandalwood trees which furnish shade for camping parties. The play of light and shadow in the old burned-out crater as the sunlight appears and floods the depths is impressive beyond words. At sunset also the views are superb.

The crater of Haleakala is the home of the rare silversword plant. It is a large spherical herb with leaves gleaming like polished silver. Only once in its lifetime does it produce a magnificent flower cluster 2 to 3 feet high. After the seeds have matured the entire plant dies.



*Silversword plant just before blooming.*



*Silversword plant in bloom.*

### COMMON TREES AND SHRUBS

Animal life in Hawaii National Park is scarce, but the scarcity of fauna is more than offset by floral abundance, and the student of botany will find much to interest him from the coconut groves of the coast to the stunted



*The fern jungles of the park form a striking contrast to the barren lava flows.*

ohia trees near the timberline of Mauna Loa. Particular attention is directed to the tropical vegetation in the Fern Jungle through which the road to the volcano passes; many of the giant ferns are 40 feet high, with single fronds 25 feet long arching gracefully over the highway. By walking only a few yards back into this jungle one easily gets the impression of being back in a prehistoric era when the entire earth was covered with plants of similar appearance. In the damp forest regions thimbleberries are found, and throughout the region along trails and open spaces ohelo berries grow in abundance.

**AALII.**—A shrub growing abundantly in the vicinity of Kilauea. The plants are rarely over 6 feet high. In season they produce red-winged capsules which were once used as a source of red dye.

**AMAUMAU FERN.**—The most common fern in the park. It grows on a trunk 1 to 5 feet high with fronds 2 to 3 feet long.

**HAPUU TREE FERN.**—Distinguished by its soft, yellow, glossy hair, or pulu, used for stuffing pillows and mattresses.

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**HAPU III TREE FERN.**—The larger tree fern with stiff, long, reddish hair on the leaf stems.

**ILIAHI, SANDALWOOD.**—Attains a height of 25 feet; thin leaves overcast with a whitish bloom; the blossoms occur in densely flowered panicles; wood very light and fragrant.

**KOA, HAWAIIAN MAHOGANY.**—The stateliest tree in Hawaii; readily recognized by its sickle-shaped leaves and large, symmetrical crown when growing in the open. The true compound leaf is found on the young trees and sprouts. Used by the natives in making dug-out canoes and surf boards; now used in making ukeleles and furniture on account of the beautiful grain. A magnificent specimen with trunk 10 feet in diameter was preserved when a lava flow stopped within 20 feet of it.

**MAMAKE, PAPER MULBERRY.**—A small tree with rough leaves, usually with prominent red veins and stalks. The Hawaiians made their tapa or paper cloth from the inner bark of this tree.

**MAMANI.**—A sturdy tree with compound leaves belonging to the pea family; bright yellow pealike blossoms; rough, corky pod, deeply constricted between the seeds; rough bark on the older trees; wood very durable, making excellent fence posts, but so hard that a special staple must be used.

**OHELO, NATIVE HUCKLEBERRY.**—Small shrub with inconspicuous flowers and red and yellow berries which are excellent for pies; very plentiful around Kilauea Crater. The natives believed these berries were especially popular with the fire goddess Pele.

**OHIA, OHIA LEHUA.**—The most plentiful tree in the islands, varying greatly in size and character of its leaves. Has a scaly bark, and produces a very hard, close-grained wood suitable for beams and railroad ties. Easily identified by its brilliant scarlet pompon blossoms.

**PUKEAWE, HAWAIIAN HEATHER.**—A common shrub or small tree bearing small, stiff leaves and showy clusters of small white, pink or dark red berries.

**ULUHE, FALSE STAGHORN FERN.**—A comparatively small-leaf fern of vine and bush character found all through the park as a tangled mass among the ohia trees and undergrowth; by itself as a thick bush.

**WAWAEIOLE, RATS FOOT.**—An interesting, low-growing club moss which has taken its common name from the manner in which its leaves resemble the grouped toes of a rat. Color is yellowish green and plant is found usually in the thickest of the undergrowth along the trail side in some sections of the park.

#### NATIVE HAWAIIAN BIRDS

The park is a sanctuary for wildlife of every sort. The following list gives the names of several of the different native species:

1. Koaee, *Phaethon rubricandus*. White tropic bird; two long feathers in tail; inhabits Kilauea Crater. Length 30 inches.
2. Nene, *Branta sandwicensis*. Goose, black throat.
3. Io, *Buteo solitarius*. Hawk; plumage varies, some birds very dark, others light, almost white. Length 16 inches.
4. Kolea, golden plover, *Pluvialis dominicus fulva*. Migrates to Alaska about May 1, returns in August.
5. Akekeke, turnstone, *Areneria interpres*. White on head, rump, throat, and belly; same habits as the Kolea. Length 9 inches.
6. Pueo, *Asio accipitrinus*. Short-eared owl; flies around in daytime. Length 14 inches.
7. Elepaio, *Chasiempis sandwicensis*. Brown, wrenlike flycatcher; friendly; spread tail and drooping wings; named from its song. Length 5.6 inches.
8. Alala, *Corvus hawaiiensis*. Crow; black, noisy. Length 19 inches.
9. Iwi, *Vestiaria coccinea*. Scarlet curved bill; young, black spotted in color, gradually changing. Length 5.8 inches.
10. Apapani or Ak Akani, *Himatione sanguinea*. Dark red, black feet and bill. Length 5.2 inches.
11. Amakihi, *Chlorodrepanis virens*. Olive green, short, slightly curved beak; male, almost yellow; sips nectar and searches for insects in foliage. Length 4.5 inches.
12. Mana, *Oreomyza mana*. Olive green creeper; searches for insects on trunks and limbs of trees; never touches honey. Length 4.5 inches.
13. Akepeuei, *Loxops coccinea*. Small; fox-red or orange; female, green; partial to Koa forests. Length 4.5 inches.
14. Akiapolaau, *Heterohynchus wilsoni*. Olive green and yellow; taps on wood like wood-pecker. Length 5.7 inches.
15. Ou, *Psittacirostra psittacea*. Olive green with yellow head; stocky, grosbeak. Length 6.2 inches.
16. Omao or Kamao, *Phaeornis obscura*. Thrush; olive brown shading to white underneath; berry feeder; jerky song; habits of shaking its wings while perching and of circling about top of tree. Length 7 inches.

#### ADMINISTRATION

The park is administered by the Department of the Interior through the National Park Service, with a superintendent, Edward G. Wingate, in immediate charge. The administrative center is in the Kilauea area.

All complaints, suggestions, and requests for information should be addressed to the superintendent, whose post-office address is Hawaii National Park, Territory of Hawaii.

#### ARMY CAMP

In the Kilauea section is a recreation camp established for the use of the officers and enlisted men of the United States Army. Each year thousands of service men spend their vacations at the Kilauea Military Camp.

### **PUBLIC AUTOMOBILE CAMPS**

Two public automobile camps, where motorists may obtain free wood and water, have been established. One is in the Ohia Forest, near Keanakakoi Crater, and 5 miles from the Volcano House. The other is located just off the main Government highway, one-half mile west of its junction with the Halemaumau-Uwekahuna Road and 3 miles west of the Volcano House. Shelter buildings, picnic grounds, fireplaces, and other conveniences are provided.

### **HOW TO REACH THE PARK**

The gateway to Hawaii's treasures, including the national park, is Honolulu, on the island of Oahu, known as the "Crossroads of the Pacific." Here the principal trans-Pacific steamship lines converge. It is the capital of the Territory of Hawaii, and is its largest city, with a population of over 130,000. It is a cosmopolitan place, with a western atmosphere and every modern improvement. Owing to a climate that varies but a few degrees the year round, there is always an abundance of beautiful tropical flowers to delight the visitor.

### **TRANSPORTATION**

Vessels of three steamship lines make Hilo, on the island of Hawaii, a regular port of call. The Inter-Island Steam Navigation Co. operates modern steamers between Honolulu and Hilo twice each week. The minimum time required for the round-trip excursion from Honolulu to the Kilauea section of the park is 2 nights and 1 day, but the most popular trip is that requiring 2 days and 3 nights with 1 night spent in the park. Either trip is available on any steamship line or combination of lines. Nearly all world-cruise liners stop at Hilo. Longer stops are of course an advantage for complete enjoyment.

The vessels of the Nippon Yusen Kaisha South America West Coast Line stop at Hilo, 1 day after leaving Honolulu, en route from the Orient to South America via San Francisco, service approximately every 5 weeks.

The park may also be approached through ports on the west coast of Hawaii, which are served by steamers of the Inter-Island Steam Navigation Co.

Passenger airplanes are now operated by the Inter-Island Airways between all the islands, in both directions, daily except Sunday.

Transportation for the trip to Hawaii National Park from Hilo is always available at moderate rates. Automobiles are to be had at Hilo at all times, and motor cars meet each steamer. Automobiles may be hired at the Volcano House at reasonable rates for special trips in and around the crater and the park.

## *Hawaii National Park—Hawaii*

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A fine motor highway connects Hilo and the Kilauea portion of Hawaii National Park, a distance of 30 miles.

Saddle horses and the services of a guide may also be obtained from nearby ranches and the Volcano House.

Several of the larger western railroads operate escorted tours to Hawaii in connection with trips to some of the western national parks and Pacific coast points of interest.

The tour way is an easy and comfortable method of visiting the parks, as all arrangements are made in advance. The total cost of the trip is included in the all-expense rate charged, and the escort in charge of each party attends to the handling of tickets, baggage, and other travel details. This is an especially satisfactory mode of travel for the inexperienced traveler or for one traveling alone. The escort, in addition to taking care of the bothersome details of travel, also assists the members of his party to enjoy the trip in every way possible.

Full information concerning these escorted tours may be obtained by writing to passenger traffic managers of the railroads serving the various national parks.

### **AIRPLANE SERVICE**

Inter-Island Airways, Ltd., with amphibian service from Honolulu to the islands of Maui and Hawaii, operates daily. One can leave Honolulu after breakfast and be on Maui in 1 hour and 15 minutes and on Hawaii in 2 hours and 30 minutes.

### **TRIP TO KILAUEA-MAUNA LOA SECTION**

The 222-mile trip from Honolulu, on the island of Oahu, to Kilauea Volcano, on the island of Hawaii, can be made by sea or air to the pretty city of Hilo. As the visitor approaches Hilo, whether by boat or by plane, the view along the Hamakua coast is one of great beauty and interest. From the sea, one sees in the foreground the rugged and abrupt shore line with whitecapped waves and surf beating against the cliffs, while the greens of the sugarcane fields and forests of the higher region make an interesting contrast, the background sloping up to the summit of Mauna Kea, the highest mountain in the Pacific.

This is the windward side of the island, where the rainfall is heavy and the topography has been eroded into many deep gorges. During rainy periods, a great quantity of water flows from this area, and in many places beautiful waterfalls are to be seen, some of them falling directly into the ocean.

Hilo, the "Crescent City", with a population of about 20,000, is the county seat of the island of Hawaii and the second largest city in the Territory. The town is exquisitely situated, with the placid waters of Hilo Bay at its front door and majestic Mauna Kea rising to an elevation of 13,784 feet in the background. The top of this mountain during the winter months is usually capped with snow and tinged with rosy hues from the first rays of the morning sun.

Entrance to the city is along a hibiscus-lined street. Nearby points of interest are the Rainbow Falls and Boiling Pots of the Wailuku River. Along the Hamakua coast a railway tunnels the headlands and bridges the gulches of this rugged coast, providing a trip of unusual scenic interest. Onomea Arch and Akaka Falls are other points of interest in this area. Flowers are to be seen everywhere during the entire year.

If time permits, the visitor should make the circuit trip of the island by automobile, through the cane fields and plantation towns of the Hamakua district, the famous Parker Ranch, and the historic Kona region, and from there to Hawaii National Park. Side trips may be taken to the City of Refuge at Honaunau and to Napoopoo, where a canoe trip can be made across Kealakekua Bay to see the monument to Captain Cook, discoverer of the islands. In the cliffs above the bay are many caves, where the remains of Hawaiian royalty are supposed to be buried.

On the west and south sides of the island the visitor passes over numerous old and new lava flows from Mauna Loa. The site of the little fishing village of Hoopuloa, destroyed by the lava flow of 1926, can be seen by taking a side trip.

For those whose time does not permit a complete round-the-island trip, requiring 3 or 4 days, a 1- or 2-day visit to the park can be arranged.

The most popular way to visit the park is in automobiles, which receive visitors at the steamer landing and an hour later deposit them at the edge of the crater of Kilauea. The ride is over smooth, paved roads, bordered by tropical flowers, with fields of sugarcane and forests of ohia and lofty fern trees on either side. Thirty miles from Hilo the first sight of Kilauea's crater is obtained. Along the way are fields of sugarcane, and here and there banana, papaia, and breadfruit trees. Several plantation towns are passed en route, and the ohia forests with their scarlet pompon blossoms and tree ferns growing among them always interest visitors.

From Olaa, about 9 miles from Hilo on the volcano road, a road branches off to the famous Kalapana district, where there is a beach of black sand fringed with coconut trees. Here may be seen a cave of refuge, lava trees, and warm springs. It was here that the "Bird of Paradise" was filmed. There are a number of Hawaiian families living in this region under primitive conditions.

## *Hawaii National Park—Hawaii*

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### TRIP TO HALEAKALA SECTION

The trip to Haleakala, on the island of Maui, may be made separately or in conjunction with the trip to Kilauea and Mauna Loa either in going to or returning from Hilo. There are good hotel accommodations and transportation facilities on Maui. The trip to the 10,000-foot summit may be made by automobile over the new highway in about 4 hours, where previously by motor and horseback it took 12 hours.

There are 33 miles of trails in this section. The most popular route into the crater is by way of the Sliding Sands Trail from the resthouse at the rim down to the crater floor, past cinder cones nearly a thousand feet high and the Bottomless Pit, returning by the Halemau Trail. The round trip can be made in 1 day from the resthouse. An experienced guide is necessary.

Other spectacular points of interest on this island are Iao Valley, a green cleft of dizzy depths in the heart of tropical mountains near Wailuku, and the scenic drives around the coast line. Arrangements for saddle-horse service may be made with E. J. Walsh, manager of the Grand Hotel, Wailuku, Maui, and others.

A very comfortable resthouse has been provided at the crater's rim by the citizens of the island of Maui. This building is fitted with steel bunks, mattresses, bedding, utensils, and other essential conveniences for visitors.

### ACCOMMODATIONS AND EXPENSES

The only hotel in the Hawaii National Park is the Volcano House, operated by George Lycurgus. Located in the Kilauea-Mauna Loa section on the outer rim of Kilauea Crater, it is 4,000 feet above the sea, in a cool, invigorating climate. From its front porch the visitor may enjoy an excellent view of Mauna Loa and of the great lava floor of Kilauea. Rates for rooms with meals vary from \$6 to \$7.50, according to the location and number of persons in a room. The weekly rate for one person in a room facing the crater is \$33.50; other rooms, \$30. One-half rates are charged for children under 6 and three-fourths for those between 6 and 12 years of age.

Guests may enjoy the novel experience of steam and sulphur baths in which live steam and heat from the volcano are used. Natural sulphur baths cost 50 cents each.

Special summer holiday rates as low as \$21 a week, or \$75 a month, make it possible for families to enjoy an extended vacation.

Arrangements may be made at the Volcano House for golf on the sporty nine-hole course of the Volcano Golf Club located near the interesting tree mold area.

## *Hawaii National Park—Hawaii*

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Automobiles to and from the Volcano House meet the steamers in Hilo. Rates for a round trip are \$7.50 per person.

A studio where photographic supplies of every kind may be obtained is adjacent to the Volcano House. It is operated by K. Maehara, who also maintains a laboratory for developing, printing, enlarging, coloring, and framing of pictures or lantern slides. Photographs of the park and island scenes may be obtained at prices varying from 3 cents for a snapshot to hand-painted pictures at \$20.

This booklet is issued once a year, and the rates mentioned herein may have changed slightly since issuance, but the latest rates approved by the Secretary of the Interior are on file with the superintendent and the park operators.

### GENERAL INFORMATION

For information regarding trips to the Hawaiian Islands it is suggested that prospective visitors get in touch with the Hawaii Tourist Bureau, with offices in Honolulu, Hawaii; 215 Market Street, San Francisco; and Petroleum Securities Building, Tenth and Flower Streets, Los Angeles, Calif.

Tours of Hawaii National Park from Honolulu may be included in the weekly excursions from the mainland conducted by the Matson Navigation Co., 215 Market Street, San Francisco; 730 South Broadway, Los Angeles; 535 Fifth Avenue, New York; 814 Second Avenue, Seattle; 230 North Michigan Avenue, Chicago; 327 SW. Pine Street, Portland, Oreg.; 119 West Ocean Boulevard, Long Beach; and 213 East Broadway, San Diego. In addition are the steamers of the Dollar Line, which maintain regular service between the mainland and Honolulu. The connecting service between Honolulu and Hilo is provided twice a week by the Inter-Island Steam Navigation Co. Sample schedules and rates follow:

#### KILAUEA-MAUNA LOA SECTION

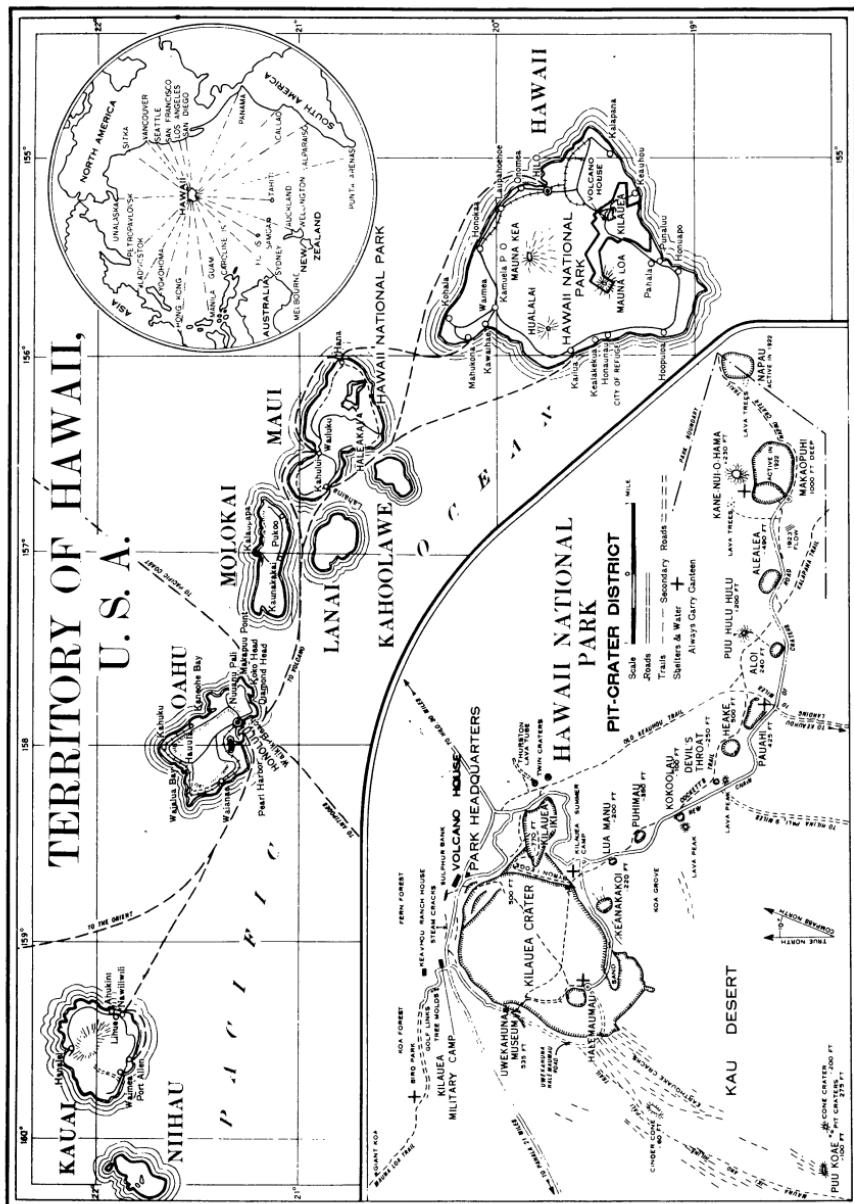
Leave Honolulu Tuesday at 4 p. m., spending Wednesday in Hawaii National Park; returning, arrive Honolulu Thursday at 6:30 a. m.....	\$40.50.
Leave Honolulu Friday at 4 p. m., spending Saturday night at Volcano House; returning, arrive Honolulu Monday at 6:30 a. m.....	51.00

#### HALEAKALA SECTION

Leave Honolulu Tuesday at 4 p. m., spending Thursday night at resthouse on summit of crater; returning, arrive Honolulu Friday 6:30 a. m.....	60.50
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If one arrives at Hilo without previous arrangements, he may rent an automobile, with or without driver, for the trip through the Kilauea section

TERITORY OF HAWAII,  
U. S. A.



## *Hawaii National Park—Hawaii*

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and around the island of Hawaii. The island is encircled by an automobile road crossing recent lava flows, and it may be negotiated easily in 3 days. Retail stores, garages, post offices, and comfortable wayside inns with good meals and lodging for visitors are to be found at convenient intervals on the route.

Travelers from the United States and Canada can easily reach Hawaii in a  $4\frac{1}{2}$ - to 6-day ocean voyage on steamers of the Matson Navigation Co., leaving San Francisco for Hawaiian ports weekly; on steamers of the N. Y. K. Line, leaving for Hawaii en route to the Orient every 2 weeks (only lay-over passengers can use this foreign line between two American ports); on steamers of the Dollar Steamship Line's Trans-Pacific and Round-the-World services, one every Friday for Honolulu en route to the Orient; on steamers of the Canadian-Australasian Line and Canadian Pacific Co. from Vancouver direct to Honolulu every 4 weeks.

Travelers from New Zealand may reach Hawaii on steamers of the Canadian-Australasian Line, leaving Auckland every 4 weeks; from Australia and New Zealand on steamers of the Oceanic Steamship Co., Matson Navigation Co., agents, leaving Sydney every 4 weeks; and on those of the Canadian-Australasian Line, leaving the same port every month. Travelers from the Orient may go direct to Hawaii on steamers of the Dollar Line and American Mail Line, leaving oriental ports for Honolulu every 2 weeks; on steamers of the N. Y. K. Line, leaving at the same intervals, and on Canadian Pacific liners every 28 days.



*Lava Cascades.*

## Hawaii National Park—Hawaii

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## GOVERNMENT PUBLICATIONS

**Recreational map.** Shows Federal and State recreational areas throughout the United States and gives brief descriptions of principal ones. Address Director, the National Park Service, Washington, D. C. Free.

**Glimpses of Our National Parks.** Brief descriptions of principal national parks. Address as above. Free.

**National Parks Portfolio.** By Robert Sterling Yard. Cloth bound and illustrated with more than 300 pictures of places of outstanding scenic interest. Superintendent of Documents, Washington, D. C. \$1.50.

Illustrated booklets about the following national parks may be obtained free of charge by writing to the Director, National Park Service:

Acadia National Park, Maine  
Carlsbad Caverns National Park, N. Mex.  
Crater Lake National Park, Oreg.  
General Grant National Park, Calif.  
Glacier National Park, Mont.  
Grand Canyon National Park, Ariz.  
Grand Teton National Park, Wyo.  
Great Smoky Mountains National Park, N. C.-Tenn.  
Hot Springs National Park, Ark.  
Lassen Volcanic National Park, Calif.  
Mesa Verde National Park, Colo.  
Mount McKinley National Park, Alaska  
Mount Rainier National Park, Wash.  
Platt National Park, Okla.  
Rocky Mountain National Park, Colo.  
Sequoia National Park, Calif.  
Wind Cave National Park, S. Dak.  
Yellowstone National Park, Wyo.-Mont.-Idaho.  
Yosemite National Park, Calif.

## DO YOU KNOW YOUR NATIONAL PARKS

**Acadia, Maine.**—Combination of mountain and seacoast scenery. Established 1919; 21.61 square miles.

**Bryce Canyon, Utah.**—Canyons filled with exquisitely colored pinnacles. Established 1928; 55.06 square miles.

**Carlsbad Caverns, New Mexico.**—Beautifully decorated limestone caverns believed largest in the world. Established 1930; 15.56 square miles.

**Crater Lake, Oregon.**—Astonishingly beautiful lake in crater of extinct volcano. Established 1902; 250.52 square miles.

**General Grant, California.**—Celebrated General Grant Tree and grove of Big Trees. Established 1890; 3.96 square miles.

**Glacier, Montana.**—Unsurpassed alpine scenery; 250 lakes; 60 glaciers. Established 1910; 1,533.88 square miles.

**Grand Canyon, Arizona.**—World's greatest example of erosion. Established 1919; 1,009.08 square miles.

**Grand Teton, Wyoming.**—Most spectacular portion of Teton Mountains. Established 1929; 150 square miles.

**Great Smoky Mountains: North Carolina, Tennessee.**—Massive mountain uplift covered with magnificent forests. Gorgeous wild flowers. Established for protection 1930; 615.76 square miles.

**Hawaii: Islands of Hawaii and Maui.**—Volcanic areas of great interest, including Kilauea, famous for frequent spectacular outbursts. Established 1916; 245 square miles.

**Hot Springs, Arkansas.**—Forty-seven hot springs reserved by the Federal Government in 1832 to prevent exploitation of waters. Made national park in 1921; 1.48 square miles.

**Lassen Volcanic, California.**—Only recently active volcano in United States. Established 1916; 163.32 square miles.

**Mesa Verde, Colorado.**—Most notable cliff dwellings in United States. Established 1906; 80.21 square miles.

**Mount McKinley, Alaska.**—Highest mountain in North America. Established 1917; 3,030.46 square miles.

**Mount Rainier, Washington.**—Largest accessible single-peak glacier system. Third highest mountain in United States outside Alaska. Established 1899; 377.78 square miles.

**Platt, Oklahoma.**—Sulphur and other springs. Established 1902; 1.33 square miles.

**Rocky Mountain, Colorado.**—Peaks from 11,000 to 14,255 feet in heart of Rockies. Established 1915; 405.33 square miles.

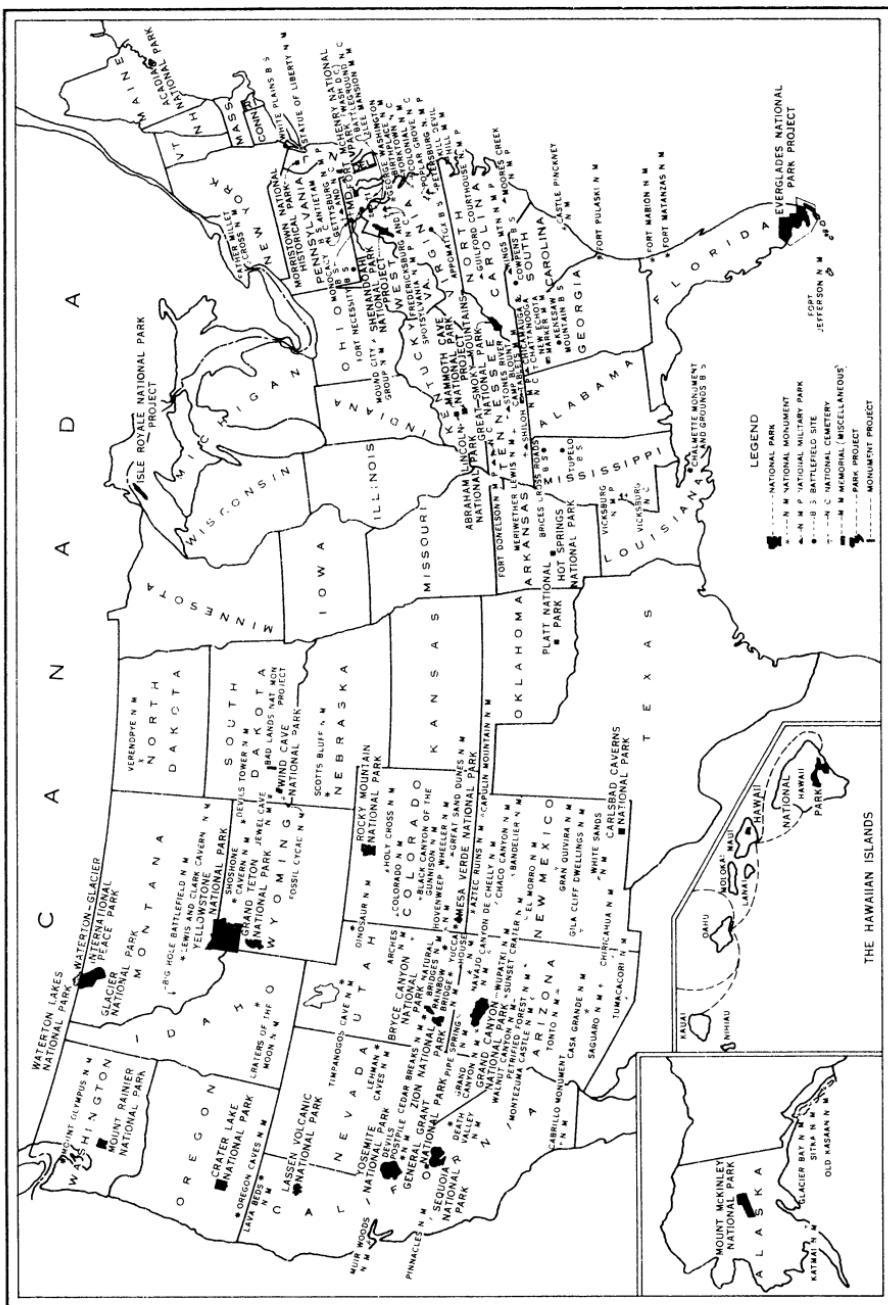
**Sequoia, California.**—General Sherman, largest and oldest tree in the world; outstanding groves of Sequoia gigantea. Established 1890; 604 square miles.

**Wind Cave, South Dakota.**—Beautiful cavern of peculiar formations. No stalactites or stalagmites. Established 1903; 18.47 square miles.

**Yellowstone: Wyoming, Montana, Idaho.**—World's great geyser area, and an outstanding game preserve. Established 1872; 3,437.88 square miles.

**Yosemite, California.**—Valley of world-famous beauty; spectacular waterfalls; magnificent High Sierra country. Established 1890; 1,176.16 square miles.

**Zion, Utah.**—Beautiful Zion Canyon 1,500 to 2,500 feet deep. Spectacular coloring. Established 1919; 148.26 square miles.



THE HAWAIIAN ISLANDS

